

Getting It Right: Fire Support in MOUT

**A Monograph
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ABSTRACT

GETTING IT RIGHT: FIRE SUPPORT IN MOUT. By Major John M. Kolessar, USA, 49 pages.

Although the Army began updating its primary military operations on urbanized terrain (MOUT) doctrinal manual, FM 90-10, *Military Operations on Urbanized Terrain*, in 1999, the fire support community did not initiate any significant changes to its MOUT doctrine. The most recent fire support doctrine for MOUT was published in 1990.

In March 1999, military planners considered contingencies in event that the air campaign to remove Serbian forces from Kosovo during Operation Allied Force was not successful. One of those contingencies was a ground offensive, which presented numerous challenges to the Army. Some of the most demanding challenges centered around urban warfare. Planners were compelled to accept the potential dilemma of fighting Serb forces in urban areas to meet the military objective of forcing Serb forces out of Kosovo. Planning for the Kosovo ground offensive indicated that serious shortfalls exist in MOUT doctrine, especially the primary urban operations manual, FM 90-10. FM 90-10 and the FM 6-20 series manuals did not provide doctrine required for planning fire support in MOUT. This monograph supports this argument by: 1) defining current US Army fire support doctrine and examining how its execution is affected by a MOUT environment; 2) providing observations regarding fire support problems in MOUT that have been documented, especially in the Russian army's Chechen campaign in 1994-1995; and 3) identifying fire support observations in the Chechen campaign that impact current fire support doctrine.

This monograph identified three basic lessons learned regarding fire support to MOUT. Commanders must: 1) coordinate artillery and maneuver during assaults into urban areas; 2) mass fires when necessary; and 3) establish a consistent, disciplined ROE. The incorporation of doctrinal responses to the lessons learned will help to prevent US forces from experiencing failure similar to the Russians in Chechnya.

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CHAPTER ONE

INTRODUCTION

In March 1999, military planners considered contingencies in event that the air campaign to remove Serbian forces from Kosovo during Operation Allied Force was not successful. One of those contingencies was a ground offensive, which presented numerous challenges to the Army. Some of the most demanding challenges centered around urban warfare.¹ Inevitably, planners accepted the potential dilemma of fighting Serb forces in urban areas to meet the military objective of forcing Serb forces out of Kosovo. Planning for the Kosovo ground offensive indicated that serious shortfalls exist in MOUT doctrine, especially the primary urban operations manual, FM 90-10, *Military Operations on Urbanized Terrain*. Calls for improved military operations on urbanized terrain (MOUT) doctrine resonate throughout the Army. This includes the fire support community, whose MOUT doctrine as defined in its FM 6-20 series manuals appeared limited and outdated.²

MOUT demands predictable effects from fire support assets, especially field artillery weapon systems. Urban terrain provides increased survivability for enemy forces. This survivability, in turn, increases the demand for accurate and lethal fires against the enemy. The potential

presence of noncombatants requires fire support planners to regulate the lethality of indirect fire systems by emplacing control mechanisms to ensure accuracy and clearance of fires. However, this attempt to minimize collateral damage jeopardizes the ability of fire support platforms to deliver responsive, massed decisive effects against enemy forces.

The Army's fire support community has limited experience in MOUT. Operation Just Cause in Panama, December 1989, and limited battles during Operation Desert Storm, February 1991, offer the most recent Army experiences regarding the use of fire support in MOUT. Fighting by the Russian army during December 1994 and January 1995 in Grozny highlights the difficulties of fighting in urban terrain, particularly those associated with the employment of fire support assets. Both US and Russian operations mentioned above identified challenges which were encountered again during planning for ground offensive operations into Kosovo. Even so, none of these operations resulted in any changes to fire support doctrine in MOUT. This monograph examines MOUT operations conducted by the Russian army during their fighting in Chechnya to identify necessary changes in fire support doctrine.

The thesis of this monograph is that FM 90-10 and the FM 6-20 series manuals do not provide doctrine required for planning fire support in MOUT.³ Although the Army began

major revisions in 1999 to its primary MOUT doctrinal manual, FM 90-10, the fire support community has not initiated any significant changes of its MOUT doctrine. The most recent fire support doctrine for MOUT was published in 1990.

This begged the primary research question, "Do FM 90-10 and the FM 6-20 series of manuals provide doctrine to support the planning of fire support in MOUT?" This monograph answers that question and shows the minimal utility of current doctrine and recommends changes to improve the quality of fire support doctrine in a MOUT environment by answering the following supporting questions: 1) What is current US Army fire support doctrine and how is its execution affected in a MOUT environment? 2) What observations regarding fire support problems in MOUT have been documented, especially in the Russian army's Chechen campaign in 1994-1995? and 3) What fire support observations identified in the Chechen campaign impact current fire support doctrine?

CHAPTER TWO

MOUT

It is important to understand the components of the urban environment that dominate MOUT going into the 21st century because they are different than the components used to draft the 1979 version of FM 90-10. They are terrain,

infrastructure and social; all three are overlapping and interdependent.⁴ Terrain is comprised of natural and man-made structures, "it is the latter that defines the urban environment more than any other."⁵ Infrastructure includes the physical and cyber-based systems that support inhabitants and enemy and their economy and government.⁶ Social aspects are often depicted as a center of gravity; specific aspects include demographics, ethic/cultural information, historical background, political/religious conflicts, customs and behaviors, criminal activity.⁷

Since the MOUT environment anticipated for the 21st century is different than the MOUT environment that the 1979 version of FM 90-10 based for fighting in European MOUT depicts, how can army forces apply military power in the most efficient manner?⁸ This monograph shows the role of fire support in answering this question. Specifically, it delineates ways that fire support can provide decisive, efficient effects. At a minimum, fire support can provide an integral part of the combined arms solution to the complex problem of MOUT.

The MOUT concept paper presented at a Fort Leavenworth, Kansas, MOUT conference 5 October through 6 October 1999, went into detail on how the MOUT environment has changed since the publication of FM 90-10 in 1979.⁹ That conference also emphasized the current FM 90-10's apparent lack of

utility since the end of the Cold War in 1989. A summary of that paper, to include a picture of what the US Army views as MOUT going into the 21st century, follows.

Doctrine for Army urban operations is obsolete. A number of political, social and military changes now extant impact on the validity and utility of the current FM 90-10. Chief among these are the following: 1) restructuring of the international political system; 2) international social trends; 3) national and military strategies and 4) changes in Army force structure and operational level Army doctrine.¹⁰ Incredulously, none of these trends has, as of yet, impacted MOUT doctrine. Because of these changes, "current Army urban doctrine for major actions and campaigns is now obsolete."¹¹ Not only is FM 90-10 outdated, but many of the factors that defined European MOUT, for which the manual was written, do not apply in the chaos of urban environments that the US Army may fight in today. Failure of FM 90-10 to take into account the complexity of urban operations may lead to experiences such as those the US Army encountered on 3 October 1993 in Mogadishu, Somalia. Those complexities are: 1) man-made terrain and supporting infrastructure and 2) density of noncombatants in close proximity to combat forces.¹²

Currently, FM 90-10 outlines the purpose of fire support in MOUT by addressing separate battlefield operating

systems. Specifically, FM 90-10 addresses field artillery, army aviation, and tactical air support.

Field artillery has two distinct roles in MOUT. One role is to serve as an indirect fire asset outside built-up areas to isolate or prevent isolation. Another role is to conduct operations inside built-up areas to provide direct fire support.

The missions of the field artillery are not changed by the urban battlefield. Positioning is critical because of mobility restrictions, limited availability of suitable areas, masking of fires by urban features, security, and enemy counterbattery. Within built-up areas, the direct fire role may take on added importance along with a more frequent use of the reinforcing mission.¹³

The Army has a variety of attack helicopters that can provide excellent support for ground commanders in MOUT operations. These assets provide a diverse selection of munitions, have superior maneuverability, and are capable of conducting close-in fire support in compartmentalized terrain characteristics of MOUT.

When using Army Aviation in support of MOUT, consideration is given to the enemy air situation, enemy air defense capabilities, terrain characteristics within and adjacent to the built-up areas, and the availability of Army or Air Force suppression means.¹⁴

Army aviation and close air support each generate distinct effects. The Marine Corps categorizes these effects into a generic category. Specifically, "...in many urban battles, aviation assets played an important role in

helping to isolate the objective and interdicting the flow of the defender's supplies and reinforcements into the built-up area."¹⁵

During MOUT, tactical air support can provide the ground commander with selective and discriminating fire support. Cluster bomb units, rockets, cannons, laser guided bombs, and electro-optically guided missiles are particularly suited for engaging hard targets.¹⁶

MOUT is listed in FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, and FM 6-20-50, *Fire Support for Brigade Operations (Light)*. Minimal information is depicted regarding MOUT. This is epitomized by the category it falls under in these manuals. MOUT is listed under an "other operations" heading in the FM 6-20 series manuals. MOUT is not given any special consideration in FM 6-20-30, *Fire Support for Corps and Division Operations* nor FM 6-20-20, *Fire Support at Battalion Task Force and Below*.

FM 100-5, *Operations*, outlines specific principles for operations other than war (OOTW); principles separate from warfighting principles. Although similar, they are still separate. Fire support doctrine does not list separate planning principles for MOUT. Should fire support principles for MOUT be listed separately as well? FM 6-20, *Fire Support in the Airland Battle*, lists and defines the principles of fire support planning and coordination as follows: 1) plan early and continuously--effectively integrate fire support with the scheme of maneuver, planning

must begin when the commander states his mission and provides his command guidance, planning is continuous and keeps pace with the dynamics of the battle; 2) exploit all available targeting assets--ensure that the acquisition requirements of the fire support system are identified; 3) consider the use of all available fire support means, both lethal and nonlethal--to consider the attack means available at user or higher level; 4) use the lowest echelon capable of providing effective fire support--delivered by the lowest level having effective means available; 5) use the most effective means--self-explanatory; 6) furnish the type of support requested--requester is usually in the best position to know what is needed; 7) avoid unnecessary duplication--ensure that duplications of fire support are resolved and that only the minimum force needed to get the desired effects is used; 8) consider airspace coordination--provides input concerning fire support use of airspace to those agencies and personnel engaged in airspace management; 9) provide adequate fire support--mission of the force and the commander's guidance determine the amounts and types of fire support needed for success; and 10) provide rapid and effective coordination--must know the characteristics of the various fire support weapons and have immediate information on their availability.¹⁷

FM 6-20-40 and FM 6-20-50 do not provide separate planning principles for MOUT. These publications do outline specific categories to consider when planning MOUT. They include: specific characteristics of MOUT; considerations involving various types of artillery munitions; considerations in the employment of forward observers and target acquisition assets; targeting considerations; positioning of artillery and mortar platforms; considerations in the use of close air support (CAS); and considerations impacting communications.¹⁸

FM 6-20-1, *Field Artillery Battalion Operations*, also addresses MOUT. This manual examines fire support in MOUT from the perspective of the field artillery battalion. Specifically, FM 6-20-1, presents MOUT in a separate annex. This annex focuses on considerations involving the seven basic field artillery tasks of coordinate fire support, acquire targets, deliver field artillery fires, communicate, move, maintain and resupply, and survive.

CHAPTER THREE

FIRE SUPPORT CHALLENGES IN MOUT

How can current doctrine support what really has been recent history (defensive actions, stability actions, support actions) vice the Army's traditional urban

focus (conduct of conventional offensive actions at the tactical level)?¹⁹ "Knowledge of the tactical effects of the urban environment is an essential and integral part of operational planning and will influence the commander's guidance to his subordinate units."²⁰ The MOUT concept paper identifies two factors which impact on the fire support battle field operating system (BOS): 1) the enemy's use of the urban terrain to complicate the employment of fire support assets and 2) concern for noncombatant casualties and collateral damage. Knowledge of the tactical effects caused by these factors on urban environment is an essential and integral part of planning and will influence the commander's guidance to his subordinate units.

The tactical task of employing firepower provides an example of the effects of the urban environment on tactical tasks. Firepower employment is the collective and coordinated use of target-acquisition data, indirect fire weapons, fixed wing aircraft and other lethal and nonlethal means against targets located throughout the area of operations.²¹ The urban environment affects all of the subtasks of firepower employment. The effects of the urban environment on employing firepower must be considered during planning and execution.²²

Targeting must be considered before initiating the use of firepower. MOUT makes the targeting process a challenge

as targets are "difficult to locate, identify, and designate."²³ The enemy uses urban terrain to complicate the employment of fire support assets. Buildings, rubble and other structures disrupted line of sight, acoustic sensing techniques, and sensing from airborne and spaceborne platforms. Another factor that gives the enemy an advantage inside an urban area is his ability to blend in with the civilian population and pose as noncombatants. Lastly, urban areas usually provide shorter distances to communicate. This mitigates a unit's normal electronic signature and takes away an important vulnerability the US Army uses to identify targets. The enemy also has at his disposal the ability to use the infrastructure to his advantage by using the population and facilities such as hospitals, churches, and schools to shield themselves from the destructive potential of fire support delivery systems.²⁴

Concern for noncombatant casualties and collateral damage also impact the employment of fire support assets. Rules of engagement (ROE) place firepower employment constraints on fire support planners in an effort to minimize noncombatant casualties and collateral damage. The ROE spans a spectrum from being restrictive or to being permissive. A restrictive ROE will most likely force fire supporters to plan for precision guided munitions (PGMs). A

permissive ROE would not restrict planners from planning the use of dual purpose improved conventional munitions (DPICM). The ROE also defines where and when specific types of munitions will be fired. "Commanders and their staff must know the ROE and the impact it will have on tactical operations."²⁵

Employment and firing of mortars vice field artillery and naval gunfire platforms is significant. MOUT demands predictable effects from fire support assets, especially field artillery weapon systems. Urban center infrastructure provides increased survivability for enemy forces. This survivability increases the requirement for accurate and lethal fires against the enemy. The potential presence of noncombatants challenges fire support planners to regulate the lethality of their fires and emplace mechanisms to ensure accuracy. An attempt to minimize collateral damage jeopardizes the ability of field artillery platforms to deliver responsive, massed, decisive effects against enemy forces. Recent operations show that a restrictive ROE is the rule, rather than the exception.

If collateral damage and the death of civilian non-combatants is not an issue, then field artillery and naval gunfire should be employed to their maximum lethality prior to friendly forces entering the MOUT environment.²⁶

It is imperative that commanders and planners understand the impact of the enemy's use of urban terrain,

which complicates the employment of fire support assets and increases concern over noncombatant casualties and collateral damage. Failure to consider these factors will minimize effects that firepower can provide in MOUT.

The affect of urban operations on fires demonstrates that the urban environment will significantly impact all the tactical functions. The other tactical tasks will be effected similarly. Tactical commanders will make on-the-ground adjustments, but operational commanders must understand the tactical circumstances in order to set the best conditions possible for their subordinates' success.²⁷

Regardless of the operation, a target must meet six requirements: 1) purpose, 2) location, 3) trigger, 4) observer with alternate observer, 5) dedicated communication net, and 6) rehearsal. This is especially important in MOUT because,

With each of the six requirements met for the target, the fire plan will be small, yet manageable and purposeful...The fire supporters should be able to go into any operation with a clear knowledge of the location and purpose for each target committed to memory. Commanders and fire supporters should always strive to obtain the best graphic representations for the area of operations...Target only known or suspected enemy locations such as bunkers, enemy vehicles, military compounds and command and control centers.²⁸

Fire supporters are not adroit at incorporating attack helicopters and AC-130 gun ships into a fire support plan. Basics, like "calls for fire, target location, communications, munitions and their effects, and friendly unit marking"²⁹ wane. The fire support plan must incorporate attack helicopters and gun ships into the fire

support plan just like any other fire support asset. Fire supporters must consider the following during the planning process for these assets: station time, weather, loiter time, fuel, arm, and resupply point (FARP) locations, air defense artillery (ADA) threats, orbits, and attack headings.³⁰

The field artillery battalion is also impacted by MOUT. Operations in MOUT are conducted by heavy or light field artillery battalions. Both can use an urban area's infrastructure to enhance its survivability by occupying structures to conceal weapons, vehicles, and soldiers. Urban areas degrade the ability of the field artillery battalion to communicate and exercise command and control over its firing units. Explicit orders, standard operating procedures (SOPs), and decentralized command and control must account for the "reduced ability to communicate and extended frontages for firing units."³¹ MOUT also poses the opportunity for field artillery firing units to engage targets using "techniques of assault fire and direct fire."³² The field artillery battalion leadership must account for these "unique advantages and disadvantages"³³ associated with MOUT by managing the seven tasks of the field artillery listed in FM 6-20-1, *Field Artillery Battalion Operations*.³⁴

Some lessons learned resonate throughout the history of US forces' employment of fire support. Enemies of US forces attempt to level the playing field by enticing a fight in MOUT. This is a constant technique used by US enemies that cannot field, maneuver, or sustain sophisticated modern forces. Also an enemy with a sophisticated force may avoid direct confrontation by forcing a fight in MOUT. These types of enemies use MOUT to nullify the US military superiority of technology, firepower, and combined arms training.

The ten fire support principles of planning and coordination, discussed earlier in this monograph, should assist fire support planners in optimizing the employment of fire support systems. MOUT increases the level of sophistication required for synchronizing the right assets to engage targets. The fire support principles of planning and coordination should mitigate the sophistication imposed by MOUT and make the fire support coordination process more efficient. This monograph uses these principles to analyze the Russian campaign into Chechnya. Through the application of these principles, strengths and weaknesses to the Russian's use of fire support are observed. These observations show strengths and weaknesses of fire support doctrine by highlighting its utility and demonstrating a

lack of planning tools in the FM 90-10 and the FM 6-20 series manuals.

CHAPTER FOUR

CHECHNYA

Andrei Raevshy sets the stage for the Russian campaign into Chechnya in late 1994 through early 1995 in his article "Russian Military Performance in Chechnya: An Initial Evaluation," from *The Journal of Slavic Military Studies*. "The military campaign in Chechnya revealed the full scope and depth of the crisis facing the Russian security, intelligence, and armed forces."³⁵ The campaign was precipitated by Russia to prevent the Chechnya province from obtaining its independence, which many former Soviet republics and states attempted to attain at the end of the Cold War. "After President Boris Yelstin signed a secret order to release 150 billion rubles for a plan of 'combat action' against Dudayev, soldiers...were promised 6 million rubles each, powerful backing, the support of the General Staff and a five-fold superiority for a short, easy campaign against Chechen separatists."³⁶ An "easy campaign" was far from the enormous hardships and challenges that the Russians would ultimately face.

The events which followed revealed severe problems which were blamed on the military at all levels of the armed forces: poor command and control, shortage of trained troops, refusal of units and commanders to execute orders, low morale, poorly maintained equipment, etc. Most striking was the

fact that the operation was executed with tactics diametrically opposed to Russian military thinking. Unfortunately, this was overlooked by many commentators who spoke of 'classical' Russian military tactics such as 'massive firepower,' 'overwhelming superiority of forces' or of 'vastly outgunned Chechens.' None of this is, in reality, supported by facts.³⁷

Prior to the Russian operation into Chechnya, one would probably have anticipated a generally easy victory for the Russians. "The Russian armed forces probably have more experience in offensive urban warfare than any other army in the world: during World War II, the Soviet Army freed 1,200 cities from the German Army."³⁸ Instead, the Russian army was not prepared to fight any type of battle, let alone undertake the monumental military mission of MOUT, which would be the focus of the Chechen campaign as its primary objective was recapturing the capital of Grozny. There is irony in the Chechen campaign, which may be observed when comparing what happened with expectations such as those depicted by the Russian Defense Minister Grachev, who boasted that a single parachute regiment could take Grozny in a couple of hours. The emancipation of Grozny "was going to be a bloodless blitzkrieg."³⁹ The 'old regime' Russian leadership anticipated an operation similar to Prague 1968. Even then, the Russians adequately prepared for resistance through intense and deliberate maneuvers and train-up periods. Preparation and execution of the Chechen campaign and the attack to seize Grozny depicted a pathetic army that

continued to "rust away" since the fall of the Berlin Wall in 1989.

Russell W. Glenn's "Summary of Proceedings RAND-DBBL Conference on MOUT" in the pamphlet *Denying the Widow-maker* provides an account of Russian combat in the Chechen campaign in late 1994 through early 1995. It also serves as a second independent verification to the facts outlined by Raevshy in his article discussed in the preceding paragraph. Specifically, Appendix D of this pamphlet outlines a briefing by Mr. Timothy Thomas entitled "The Battle for Grozny January, 1995." Thomas depicts lessons learned and Russian opinions about the most lethal combat-in-cities experience since Berlin (1945), Hue (1968), and Beirut (1983).⁴⁰ The following summary comes from these sources.

The endstate of the battle for Grozny showed the difficulties and savagery of MOUT warfare. Four thousand rounds per hour fell in Grozny versus 350 per hour in Sarajevo prior to the commitment of NATO to enforce the Dayton Peace Accords. Russians lost 20 of 26 tanks and 102 of 120 BMPs in the initial battle; Russian soldiers were hung upside down in windows or hung on crosses in city center; by 7 February 1995 one-seventh of the Russian brigade that led the assault into Grozny had viral hepatitis. Military leaders could not differentiate between police actions and combat in cities.⁴¹ The participants and

their tactics and strategy defined the brutal outcome of the initial stages of the Chechen campaign.

Forces available for the Russians included 38,000 soldiers, 6,000 in the attack; 230 tanks; 454 BMPs; 388 tubes of artillery. The Chechens had available: 15,000 soldiers; 50 tanks; 100 armored vehicles; 60 tubes of arty; 150 anti-aircraft guns; plus, access and influence over the press, local population, knowledge of the city.⁴²

The plan for each side showed strengths and weaknesses. The Russians plan was a three-pronged attack from the north, west, and east. The south was left open. The plan required high level of movement and coordination in dictated time frames with inadequate reconnaissance and communication with its headquarters. The Chechen plan concentrated on defense and guerrilla tactics. The Chechens occupied the city center and established three perimeters. Each perimeter was a concentric circle at one, one and a half, and five kilometers from Grozny's center. The plan also incorporated multiple ambushes with the intent to channelize Russian forces. The Chechens could exercise freedom of movement from within Grozny. They also planned destruction of refineries and chemical plants.⁴³ Specifically, Chechen tactics concentrated on exploiting the Russian vulnerabilities exposed through their use of armor. Chechens let armored columns into the city. Then, they

sealed off the city and conducted a methodical annihilation of Russian forces. Columns were halted by first killing their lead and rear vehicles, which were engaged from the tops of buildings or from basements where tank guns could not reach. Chechen rebels also employed guerrilla tactics that consisted of: shooting Russian soldiers' legs, then shooting those coming to help, and booby trapping of doorways, breakthrough areas, entrances to sewers, and bodies.⁴⁴

Based upon past history, Russian strategists estimated that Grozny, with a population 400,000 people, would be defended by 15,000 regular soldiers with the potential to draw upon an additional 30,000 to 40,000 paramilitaries with up to 500,000 men on full mobilization.⁴⁵ The strategists planned for an overall superiority of 6:1.⁴⁶ The Russians initially deployed with 23,800 men, including 4,700 men of the Ministry of Internal Affairs, 80 tanks, 208 APC/IFVs and 182 artillery pieces. Eventually these forces increased to 38,000 soldiers, 230 tanks, 454 APC/IFVs and 388 artillery pieces.⁴⁷ Initial and subsequent force ratios are depicted in following chart (Figure 1):⁴⁸

	Russian	Chechen	ratio
Soldiers	23,000 (initial)	45,000	.5:1
	38,000 (subsequ)	(15reg+30para)	.8:1
Tanks	80	50	1.6:1
	230	50	4.6:1

APC/IFV	208	100	2:1
	454	100	4.5:1
Artillery	182	100	1.8:1
	388	100	3.9:1

Figure 1. Force Ratios Between Russian and Chechen Forces.

Russians did have numerical superiority. However, this was not sufficient to achieve the Russian military objective of capturing Grozny. Grozny, the Chechen capital, was rapidly surrounded by Russian forces from the west, north, and east with little difficulty.⁴⁹ However, many commanders refused to commit their forces against Grozny, because of the use of inexperienced soldiers with minimal preparation. General Podkolzin, Commander of the Airborne Forces, admitted that the units which had participated in the storming of Grozny had no training in urban warfare, let alone "minimal combat training, some of them had only harvested potatoes, and that only very few fully trained or professional elite units had been sent in..."⁵⁰

Chechens did not fight the Russians in the suburbs. Instead, they let them penetrate the streets of the center of the city "where the Russian armor could not maneuver nor exercise its firing range and where the Chechens encircled and destroyed them."⁵¹ Grozny showed the grim reality of MOUT, specifically at the mid- to high- intensity levels, "...for what has probably been the most violent and longest battle in a city since WWII."⁵² The battle of Grozny joins

the infamous "battles for the control of Beirut, Mogadishu, Vukovar and many other cities...demonstrating that urban warfare is one of the most difficult tasks which can be given to any army."⁵³ Examining the fire support aspect in detail, regarding the Chechen campaign, with special emphasis on the Battle for Grozny, shows this difficulty.

Major Gregory J. Celestan provides an accurate and detailed overview, through the use of actual Russian documents, of the employment of fire support assets in his *Field Artillery* article, "Red Storm: The Russian Artillery in Chechnya." The Russians initiate the Chechen campaign with Cold War Soviet tactics. The dynamics of the Chechen battlefield, particularly the MOUT, force the Russians to adjust their doctrine. Although the Russians attempted to tailor their fire support doctrine to the complex MOUT environment, highlighted by the assault into Grozny, fire support did not provide the decisive effects that the Russian military leaders hoped to attain.

The Russian Army initially planned a two-fold use of its fire support assets. First, it integrated its fire support assets as a part of its combined armies team. "Soviet doctrine stated that the battalion was the most effective means of attacking targets. Massed, centralized artillery was recognized as the best means to destroy targets on the battlefield."⁵⁴ Second, it used fire support

"as a shock weapon to demoralize and break opposing forces."⁵⁵ Historically, Russian artillery destroyed the majority of the targets during its conflicts. Chechnya was no different. "The main difference in Chechnya was the use of artillery as a means, in itself, as opposed to being used as part of a combined armies team."⁵⁶ Commanders were not confident in conducting offensive operations without fire support.

Several articles in Russian military publications, that Celestan studied, discuss artillery employment throughout Chechnya. A common theme throughout these articles is the "realization that the quantity of fire employed during a battle depends on the situation and can't be planned using standard rules of engagement."⁵⁷ A Russian colonel, Sergey Leonenko, stated bluntly in his 1995 article for *Armeyskiy Sbornik (Army Digest)*, "It is obvious there can be no recommendations for employing artillery in taking a city either in terms of duration or method of fire. The fact is that in one case, troops take a city using all weapons without restrictions and in another case, under orders to preserve the city as a cultural and economic center."⁵⁸ The Russian army primarily used field artillery platforms to inflict this undisciplined and indiscriminate use of fire support.

The Russians employed a variety of cannon, rocket and missile artillery during the Chechen campaign. Specifically, the Russians fired 2S1-122mm self-propelled howitzers, 2S3-152mm self-propelled gun-howitzers, 2S19-152mm self-propelled guns, 2S23-120mm self-propelled howitzers-mortars, BM21-grad 122mm multiple rocket launchers, and BM22-Uragan 220mm multiple rocket launchers.⁵⁹ The Russian army plan to use centralized artillery tactics failed miserably as they received unexpected levels of resistance, and consequently, high casualties. The Russians changed their method of task organizing artillery assets in an attempt to prevent future occurrences of heavy casualties. "Russian commanders decided to break up the larger combat formations and assign small artillery sub-units to these miniature task forces. The task force commander assumed responsibility for the artillery sub-unit as he employed it by platoons or individual pieces during the street fighting."⁶⁰

Cold War Soviet doctrine dictated that the battalion was the lowest tactical unit to aid in the massing of concentrated fires on the battlefield.⁶¹ "In Chechnya, each battalion sized task force had a battery of self-propelled howitzers, one to two batteries of mortars and one to two batteries of divisional artillery, which were broken down into smaller detachments to fight...Russians employed this

technique to counter Chechen strongpoints in buildings and along crossroads."⁶²

After adjusting their tactics, the Russian army used artillery "to pave the way for the rest of their forces along city streets. Direct fire became the approved method to destroy strongpoints and fortified buildings."⁶³ Direct fire engaged targets from a range of 150 to 200 meters. This technique provided an effective method to control the inexperienced cannoneers that lacked proper communication systems.

Most operations consisted of Russian artillery and aviation units executing strikes "until the local commander felt all resistance had been destroyed. A mounted patrol was dispatched, and if it encountered any return fire, it withdrew and the bombardment commenced again."⁶⁴ Chechens caught onto this quickly and would leave the cities as Russian artillery set-up and infiltrate the cities as the patrols were conducted. "There is little, if any evidence, of coordinated maneuver unit and artillery assaults on villages."⁶⁵ This was compounded by the challenges of fire support coordination.

Fire support coordination was one of the biggest challenges for the Russian army. The assault into Chechnya had Russian forces approaching Grozny on north, west, and east axes. "These units were formed into temporary

organizations that did not have a habitual working relationship and never trained together. As a result, the Russians were unable to mass their significant artillery assets."⁶⁶ The Russian campaign into Chechnya provided many lessons for the US fire support community to consider in updating its doctrine for MOUT.

CHAPTER FIVE

LESSONS LEARNED

Throughout the 1990s, culture in the US military and society would not tolerate the tactical, operational, and strategic methods that the Russians employed during their campaign in Chechnya, especially the assault on Grozny. There was, "no regard for collateral damage; no regard for non-combatants; rubble, then clean-up."⁶⁷ Still, the Russian army captured Grozny on 19 January 1995 to eventually lose it back to the Chechen rebels later that year. Most importantly, there are lessons from this fighting that US doctrine writers can apply to future MOUT doctrine. These lessons are: 1) the Russian army's inability to coordinate artillery and maneuver during assaults into urban areas underscored by the attack into Grozny; 2) the Russian army's inability to mass fires when necessary; and 3) the Russian army's failure to establish any type of consistent, disciplined ROE, which turned the Chechen people against the army. "Lessons from the Russian

experience in Chechnya are relevant to many armies due to the changing nature of warfare on the eve of the 21st century. Increasing urbanization guarantees that, regardless of the region, conflict in the future will involve the use of artillery in close proximity to civilians."⁶⁸ Current FM 90-10 and FM 6-20 series manuals fail to adequately address these important lessons and issues. These lessons highlight failures which led to the ultimate defeat of Russian forces in Chechnya. US planners and doctrine writers should consider these lessons when developing plans and doctrine, respectively, for MOUT.

MAJ Raymond C. Finch, III explained the ineptness of the Russian campaign in Chechnya from October 1994-September 1996 in his article "Why the Russian Military Failed in Chechnya." Finch characterizes the Russian's fight in Chechnya during this time period as "how not to fight a war; violation of US principles."⁶⁹ The principles that Finch refers to are the principles of war outlined in FM 100-5, *Operations*. Objective, offensive, mass, economy of force, and simplicity draw direct parallels to the use and failure of fire support assets during the Chechnya campaign.

Objective. The objective for the Russians during the Chechen campaign was "to preserve the territorial integrity of Russia and establish constitutional order in Chechnya."⁷⁰ The Russian government's initial plan did not intend to use

heavy bombardment of Chechen civilians with air power and artillery. Rather it wanted to convince the Chechen population that Russian soldiers were there to liberate them. However, Russian tactics soon violated the trust of Chechen civilians with the indiscriminate bombing of civilian targets. "Even after operational control was passed to the internal forces, there appeared to be little change in the tactics: destroy any and all rebel forces and pay little heed to the collateral damage."⁷¹ The Russian insistence on leveling Grozny may have initially led to a temporary objective of controlling Chechnya. Russia's failure to achieve its endstate dictated otherwise. The indiscriminate use of fire support assets to shell Chechnya motivated the Chechen rebels and populace to fight until the Russians left.

Offensive. "Despite their overwhelming advantages in firepower, the Russians never enjoyed freedom of action, except in the air."⁷² This advantage was often negated by the winter weather. The Russian army could never establish momentum during the campaign. The Russian army failed to integrate artillery with offensive actions into Chechnya, especially the assault into Grozny. Momentum was halted due to the constriction of the MOUT environment. Integration of fire support assets during the offensive operations could have sustained positive movement for the Russian army. This

lack of integration also impacted the Russian's ability to mass fires and forces.

Mass. "Despite the advantage in firepower, heavy armored forces are of limited value in low-intensity operations."⁷³ This is compounded by the poorly trained and inexperienced soldiers deployed to fight the campaign. "For the principle of mass to work, all forces must be synchronized into a 'closed fist.' The various branches of the Russian defense establishment were not well coordinated. Indeed, there were numerous reports of Russian units not cooperating with each other, and in some cases, deliberately firing on each other."⁷⁴ Although fire support assets were never reported to have committed intentional fratricide, planning for the massing of ground forces and fire support was minimal. Once again, this failure to integrate forces allowed the Russian army to settle into a quagmire associated with indecisive MOUT.

Economy of force. The Russian army, compounded by the civilian leadership's desire to fight a spontaneous campaign, failed to adequately plan the Chechen campaign. "Without thorough planning and preparation, it is impossible to gain economy of force. Problems with command and control resulted in the sloppy employment and distribution of forces. Unable to accurately target the Chechen rebels and crush the Chechen center of gravity, Russian forces adopted

a 'shot gun' approach."⁷⁵ Again, this is another example of the Russian army using fire support assets indiscriminately. A typical example shows this. Russian forces would fire an inordinate amount of artillery on what they believed to be a sniper position. Often this "injudicious employment of combat power served to alienate a large percentage of the potentially neutral Chechen population and transformed them into active combatants."⁷⁶

Simplicity. Friction between government and military officials complicated the development of the campaign plan for Chechnya. This friction prevented development of a simple plan. Senior military officials of the Russian Army did not anticipate an easy fight such as the one envisioned by Defense Minister Grachev. Many top ranking military officers resigned prior to the campaign because of a perceived lack of support from the Kremlin and the Defense Ministry. Higher leadership wanted to conduct a train-up prior to the start of the campaign. That request was denied. The failure to allow a train-up was compounded by the higher authority's negligent desire to initiate an immediate operation. Finch summarized the Russian's inability to make the campaign simple through discussion of the government-military link. This link was broken as the whole operation bordered on apathy and anarchy by the military.

To coordinate the many disparate elements involved in any modern combat operation and transform them into a 'simple' whole requires thorough training, solid leadership and intensive preparation. This was especially true in Chechnya, where Russian forces were drawn from a host of different security agencies and were unfamiliar with working with each other. Lacking experience in interoperability, this menagerie of Russian units never achieved simplicity, and their performance can best be summed up by a Russian intelligence officer at the tail end of the conflict: 'There were an awful lot of bosses here, and they have brought in more than enough troops, but no one knows how to give a sensible order.'⁷⁷

This void not only prevented development of a simple campaign, but also questioned the legitimacy of government and military leadership.

This lack of leadership compelled a feeling that there was "a casual disregard toward the fate of both soldiers and civilians. Russian military actions displayed an almost complete indifference toward casualties. The remains of Russian soldiers, Chechen rebels and innocent civilians were left to rot on the streets for weeks."⁷⁸ Even Russian fire planners showed an attitude of savagery bordering on war crimes as "cultural landmarks, hospital, and markets in their pursuit of rebel forces"⁷⁹ were targeted. An attempt by the Russians to liberate the Chechen citizens from the Dudayev regime became a perception of hate as "eternal enemies."⁸⁰ What initially started as good intentions by the Russian government and army soon turned into not just a war against the Chechen rebels, but a war against Chechen civilians and all of Chechnya.

When the Russians did attain success, they relied on fire support assets for results either individually or integrated with ground forces. The key to the Russian success was "the shock effect of these weapons combined with their ability to destroy large areas with one volley..."⁸¹ Use of fire support assets can provide success in MOUT if used in a coordinated, disciplined manner. The Russians did this infrequently. This coordination must include other fire support assets, ground forces, and service support forces. Fire support must not directly, or through collateral damage, attack non-combatants. Planners must minimize the impact of turning the local population against friendly forces through the use of fire support in MOUT. Non-lethal assets can assist in reducing the effects of conventional fire support assets.

The use and consideration of non-lethal weapons by the Russians produced cutting-edge lessons learned. These non-lethal means concentrated on the use of functional effects to debilitate weapons, equipment, and personnel through chemical, biological, frequency modulation, and lasers. Other non-lethal means involved the use of incoherent rays of light to blind, reduce the sense of well-being, and cause seizures. Others involved subsonic sound, like the never-ending smoke detector, that penetrates concrete or metal and induces vomiting and spasms. Chemical and biological

weapons employed or considered included the use of "traction interrupters" to interfere with equipment's working parts, chemical paralyzers of people, pyrophoric materials to burn non-flammables, change road surfaces to make them slippery, biologically destructive materials to destroy electricity and insulating materials. Lastly, the use of holograms, aerosols, and smoke impacted operations.⁸² FM 90-10 and the FM 6-20 series manuals do not go into detail on how to effectively employ non-lethal types of weapons. They definitely do not provide insight on new types of technology as discussed in this paragraph. Nor do these manuals discuss potential effects. Future doctrine should consider incorporating these types of non-lethal means. They provide a potential means with which to minimize collateral damage while still accomplishing a mission during MOUT.

CHAPTER SIX

CONCLUSION

The Army began major revisions to its primary MOUT doctrinal manual, FM 90-10, in 1999. The fire support community also initiated minor changes to its MOUT doctrine. These initiatives are a step in the right direction, but to date, do not provide the information needed for fire support planners. FM 90-10 and the FM 6-20 series manuals do not provide doctrine sufficient enough to support the planning of fire support in MOUT.

As the Army enters the 21st century, it is clear that chaos and complexity define the MOUT environment. This chaos and complexity demand that fire support assets provide predictable effects. Urban terrain provides increased survivability for enemy forces. This survivability, in turn, increases the demand for accurate and lethal fires against the enemy. The potential presence of noncombatants requires fire support planners to regulate the lethality of indirect fire systems by emplacing control mechanisms to ensure accuracy and clearance of fires. However, this attempt to minimize collateral damage jeopardizes the ability of fire support platforms to deliver responsive, massed decisive effects against enemy forces.

During the 1990s, success in military operations became more complex; more difficult to attain. Constraints on how to achieve that success increased. These constraints are the variables that make up the equation for success, which Russell Glenn defines as "SUCCESS = military mission accomplishment + reasonable friendly force casualties + tolerable noncombatant casualties."⁸³ Updated doctrine must set the conditions to attain this success. This monograph outlined factors, the effects of terrain and the impact of non-combatants and collateral damage avoidance, that influence MOUT and lessons learned from the Russian army's Chechen campaign. These factors and lessons learned can

influence the reasonable friendly force casualties and tolerable noncombatant casualties from the fire support perspective in MOUT. Doctrine writers must consider these factors and lessons learned for future MOUT doctrine.

The Russian campaign in Chechnya provided three basic lessons learned. Commanders must: 1) coordinate artillery and maneuver during assaults into urban areas; 2) mass fires when necessary; and 3) establish a consistent, disciplined ROE. FM 90-10 and the FM 6-20 series manuals do not provide the necessary degree of fidelity at task force and higher level regarding these lessons learned. These manuals must provide that fidelity.

Coordination of fires between the fire support, maneuver, aviation, and air force community must emphasize that the synergy of all assets will help to achieve success in MOUT environment. The fire support community exploited technology in the 1990s through perfecting the use of precision guided munitions. Yet the need for doctrine which facilitates the massing of fires, both direct and indirect, to destroy, neutralize, or suppress a target in a MOUT still remains. Future doctrine must also emphasize the establishment of an ROE. ROE can range between allowing permissive and restrictive fires. Fire supporters require a defined ROE to plan fires. Doctrine must guide planners on the distinction between these two ends of the ROE spectrum.

It also must delineate the ambiguity caused by an ROE within the spectrum of permissive and restrictive fires. Lastly, although non-lethal types of weapons did not play a significant role in the Chechnya campaign, they were introduced. The Russian army began tapping the potential effects of non-lethal means to attack the Chechen rebels. FM 90-10 and the FM 6-20 series manuals do not go into detail on how to effectively employ non-lethal types of weapons. Nor do these manuals discuss potential effects. Our doctrine must capture in greater detail this combat multiplier. They provide a potential means with which to minimize collateral damage while still accomplishing a mission during MOUT.

Incorporating these lessons learned into future doctrine will assist in development of tools fire support planners require to coordinate fires. Lessons learned from the Russian campaign in Chechnya must be integrated into doctrinal MOUT manuals to provide critical guidance on MOUT to planners, especially fire support planners. The incorporation of doctrinal responses to the lessons learned from Russia's Chechnya experiences will help to prevent US forces from experiencing a similar fate.⁸⁴

BIBLIOGRAPHY

- Bushey, Major David A. and Captain Michael Forsyth.
❖ Targeting on the LIC and PKOBattlefield: A Paradigm Shift.❖ *Field Artillery*, January-February 1999: 5-8.
- Celestan, Major Gregory J. ❖ Red Storm: The Russian Artillery in Chechnya.❖ *Field Artillery*, January-February 1997: 42-45.
- Combined Arms Doctrine Directorate. *CGSC Student Test 100-40: Offensive and Defensive Tactics*. Fort Leavenworth: Command and General Staff College, 1999.
- ❖ A Concept for Future Military Operation on Urbanized Terrain.❖ *Marine Corps Gazette*, October 1997: A-1-A-6.
- Donnelly, C. N. ❖ Soviet Techniques for Combat in Built-up Areas.❖ *International Defense Review*, February 1997: 238-242.
- Eikenberry, Lieutenant Colonel Karl W. ❖ Improving MOUT and Battle Focused Training.❖ *Infantry*, May-June 1993: 36-42.
- Finch, Raymond C. ❖ Why the Russian Military Failed in Chechnya.❖ (On-line) Available <http://call.army.mil/call/fmso/fmsopubs/issues/yrusfail/yrusfail.htm> 27 Oct 1999.
- ❖ Fire Support for MOUT.❖ *JRTC Fire Support Newsletter*. (On-line) Available http://call.army.mil/call/ctc_bull/jrtcnews/jan97pt2.htm. 20 July 1999.
- Francy, MAJ Richard Jr. *Precision Fire Support for MOUT*. Fort Leavenworth, Kansas: School of Advanced Military Studies, United States Army Command and General Staff College, Monograph, December, 1994.
- Glenn, Russell W. *Denying the Widow-maker*. Washington, D.C.: RAND, 1998.
- Glenn, Russell W. ❖ Fox Trot: Seeking Preparedness For Military Urban Operations. ❖ *Armed Forces Journal*, May 1999: 46-49.
- Glenn, Russell W. *Marching Under Darkening Skies*. Washington, D.C.: RAND, 1998.

Glenn, Russell W. " ...We Band of Brothers" *The Call for Joint Urban Operations Doctrine*. Washington, D.C.: RAND, 1999.

Groves, Brigadier General John R. "Operations in Urban Environments." *Military Review*, July-August 1998: 31-40.

Hahn, Robert F. and Bonnie Jezior. "Urban Warfare and the Urban Warfighter of 2025." *Parameters* 2(summer 1999): 74-86.

Headquarters, Department of the Army. *FM 6-20-1: Field Artillery Battalion Operations*. Washington D.C.: Department of the Army, 1993.

Headquarters, Department of the Army. *FM 6-20-10: The Targeting Process*. Washington D.C.: Department of the Army, 1996.

Headquarters, Department of the Army. *FM 6-20-20: Fire Support at Battalion Task Force and Below*. Washington D.C.: Department of the Army, 1991.

Headquarters, Department of the Army. *FM 6-20-30: Fire Support for Corps and Division Operations*. Washington D.C.: Department of the Army, 1989.

Headquarters, Department of the Army. *FM 6-20-40: Fire Support for Brigade Operations (Heavy)*. Washington D.C.: Department of the Army, 1990.

Headquarters, Department of the Army. *FM 6-20-50: Fire Support for Brigade Operations (Light)*. Washington D.C.: Department of the Army, 1990.

Headquarters, Department of the Army. *FM 6-20: Fire Support in the Airland Battle*. Washington D.C.: Department of the Army, 1988.

Headquarters, Department of the Army. *FM 6-60: Multiple Launch Rocket System Operations*. Washington D.C.: Department of the Army, 1996.

Headquarters, Department of the Army. *FM 6-121: Target Acquisition*. Washington D.C.: Department of the Army, 1990.

Headquarters, Department of the Army. *FM 90-10: Military Operations on Urbanized Terrain*. Washington D.C.: Department of the Army, 1979.

Hewish Mark and Rupert Pengelley. "Warfare in the Global City." *Jane's International Defense Review*. June 1998: 32-43.

Ingram, Judith. "Russia Raises Specter of War." *The Kansas City Star*, 28 Sep 1999.

"Modern Urban Battle Analysis and Observations." *MAWTS-1 Aviation Combat Element MOUT Manual*. (On-line) Available <http://www.geocities.com/Pentagon/6453/battles1.html>. 20 July 1999.

Mordica, George J. "It's a dirty business, but somebody has to do it." (On-line) Available <http://call.army.mil/call/trngqtr/tq4-99/mordica2.htm> 27 Oct 1999.

MOUT Concept Paper. "Army Urban Operations." (On-line) Available <http://CADD/FM90-10/CP/AD/09/30/99>.

Musayev, Ruslan. "Russian Rockets Kill 118 in Chechnya." (On-line) Available <http://www.aol.com/ap/chechnya>.

Oxford, MAJ Donald G. *Fire Support in Low Intensity Conflict-Is Current Doctrine Adequate?* Fort Leavenworth Kansas: School of Advanced Military Studies, United States Army Command and General Staff College, Monograph, March 1990.

Peters, Ralph. "The Future of Armored Warfare." *Parameters* 3 (Autumn 1997): 50-59.

Peters, Ralph. "Invading Kosovo: A Battle Plan." *Newsweek*, 3 May 1999: 49.

Peters, Ralph. "Our Soldiers, Their Cities." *Parameters* 1 (Spring 1996): 43-50.

Podlesny, Robert E. "MOUT: The Show Stopper." *Proceedings*, February 1998: 50-54.

Raevsky, Andrei. "Russian Military Performance in Chechnya." *The Journal of Slavic Military Studies*, December 1995: 681-688.

Rosenau, William G. "Every Room is a New Battle: The Lessons of Modern Urban Warfare." *Conflict and Terrorism*, October-December 1997: 371-384.

Scales, Robert H. *Firepower in Limited War*. Novato, CA: Presidio Press, 1995.

Thomas, Timothy L. "The Battle of Grozny: Deadly Classroom for Urban Combat." *Parameters* 2 (Summer 1999): 87-102.

"Use of Mortars in Military Operations on Urbanized Terrain." (On-line) Available <http://call.army.mil/call/trngqtr/tq4-99/mortars.htm>, July 16, 1999.

"Use of the Multiple Launch Rocket System in Military Operations on Urbanized Terrain." (On-line) Available <http://call.army.mil/call/trngqtr/tq4-99/mlrs.htm>, July 16, 1999.

Worrell, MAJ Harold Jr. *The Role of Fire Support in Peacekeeping and Peace Enforcement Operations*. Fort Leavenworth, Kansas: School of Advanced Military Studies, United States Army Command and General Staff College, Monograph, December, 1993.

ENDNOTES

¹ Ralph Peters, "Invading Kosovo: A Battle Plan," *Newsweek*, 3 May 1999, 49.

² This monograph reviews the following FM 6-20 series manuals: FM 6-20, *Fire Support in the Airland Battle*, FM 6-20-1, *Field Artillery Battalion Operations*, FM 6-20-20, *Fire Support at Battalion Task Force and Below*, FM 6-20-30, *Fire Support for Corps and Division Operations*, FM 6-20-40, *Fire Support for Brigade Operations (Heavy)*, FM 6-20-50, *Fire Support for Brigade Operations (Light)*.

³ This monograph reviews the following FM 6-20 series manuals: FM 6-20, *Fire Support in the Airland Battle*, FM 6-20-1, *Field Artillery Battalion Operations*, FM 6-20-20, *Fire*

Support at Battalion Task Force and Below, FM 6-20-30, Fire Support for Corps and Division Operations, FM 6-20-40, Fire Support for Brigade Operations (Heavy), FM 6-20-50, Fire Support for Brigade Operations (Light).

⁴ Combined Arms Doctrine Directorate, *MOUT Concept Paper (Draft)*, "Army Urban Operations," (Fort Leavenworth: Command and General Staff College, 1999) 14.

⁵ Ibid., 15.

⁶ Ibid., 22.

⁷ Ibid., 23-24.

⁸ This is one of the fundamental questions that the MOUT concept paper frames and attempts to answer. Ibid., 24.

⁹ Fort Leavenworth is the proponent for revising FM 90-10. This conference was a catalyst to that revision and to review the MOUT concept paper discussed in this monograph.

¹⁰ *MOUT Concept Paper (Draft)*, 2.

¹¹ Ibid.

¹² Ibid., 6.

¹³ Headquarters, Department of the Army, *FM 90-10: Military Operations on Urbanized Terrain* (Washington D.C.: Department of the Army, 1979), 4-1.

¹⁴ Ibid., 4-5.

¹⁵ "Modern Urban Battle Analysis and Observations, Part 1," (Online) Available <http://www.geocities.com/Pentagon/6453/battles1.html>, 20 July 1999.

¹⁶ *FM 90-10*, 4-6.

¹⁷ Headquarters, Department of the Army, *FM 6-20, Fire Support in the Airland Battle* (Washington D.C.: Department of the Army, 1988), 1-2.

¹⁸ Headquarters, Department of the Army, *FM 6-20-40, Fire Support for Brigade Operations, Heavy* (Washington D.C.: Department of the Army, 1990), J-13.

¹⁹ *MOUT Concept Paper (Draft)*, 25.

²⁰ Ibid., 36

²¹ Combined Arms Doctrine Directorate, *CGSC Student Text 100-40, Offensive and Defensive Tactics* (Fort Leavenworth: Command and General Staff College, 1999) 3-12.

²² *MOUT Concept Paper (Draft)*, 36.

²³ Ibid., 38.

²⁴ Ibid., 38. The MOUT Concept paper discusses these factors in detail explaining the enemy's use of the urban terrain to complicate the employment of fire support assets

²⁵ Ibid., 40. The MOUT concept paper discusses the impact of ROE in MOUT.

²⁶ "Fire Support in MOUT," *JRTC Fire Support Newsletter*, Jan 97, (Online) Available http://cal.army.mil/call/ctc_bull/jrtcnews/jan97pt2.htm, 20 July 1999.

²⁷ Ibid., 38.

²⁸ "Fire Support in MOUT," *JRTC Fire Support Newsletter*, Jan 97, (Online) Available http://cal.army.mil/call/ctc_bull/jrtcnews/jan97pt2.htm, 20 July 1999.

²⁹ Ibid.

³⁰ Ibid.

³¹ Headquarters, Department of the Army, *FM 6-20-1, Field Artillery Battalion Operations*, (Washington D.C.: Department of the Army, 1993), B-1.

³² Ibid.

³³ Ibid.

³⁴ *FM 6-20-1*, Annex B, provides an overview of these advantages and disadvantages for the field artillery battalion in a MOUT environment. It also provides techniques for managing the seven tasks of the field artillery.

³⁵ Andrei Raevsky "Russian Military Performance in Chechnya: An Initial Evaluation," *The Journal of Slavic Military Studies* (December, 1995): 681

³⁶ "Moscow's Covert War in Chechnya," *JIR Pointer*, December 1994, quoted in Raevsky, "Russian Military Performance in Chechnya," 681.

³⁷ "Raevsky, "Russian Military Performance in Chechnya," 681.

³⁸ V. G. Reznichenko, *Taktika* (Moscow: Voenizdat, 1981) quoted in Raevsky, "Russian Military Performance in Chechnya," 681.

³⁹ Pavel Litovkin, "Ministry of Defense of the Russian Federation: General Grachev Calls the Version About Russian Army Participation in the Chechen Conflict Nonsense," *Izvestiya*, 29 November 1994 quoted in Raymond Finch, "Why the Russian Military Failed in Chechnya," (Online) Available <http://call.army.mil/call/fmso/fmsopubs/issues/yirusfail/yirusfail.htm>, 27 October 1999.

⁴⁰ Russell W. Glenn, *Denying the Widowmaker* (Washington D.C.: RAND, 1998), 49.

⁴¹ Ibid., 51.

⁴² Ibid., 53.

⁴³ Ibid.

⁴⁴ Ibid., 55.

⁴⁵ Figures quoted by Col. Gen. Kulikov based on the personal archive of Dudayev seized on 25 Jan 9. Richard Woff, "Who's Who in the Chechen Operation," *JIR*, April 1995, used in Raevsky, "Russian Military Performance in Chechnya," 682.

⁴⁶ Jean Le Cudennec, "La Bataille Pour Grozny," *Raids*, April 1995, used in Raevsky, "Russian Military Performance in Chechnya," 682.

⁴⁷ "Krisen und Konflikte-Tschetschenien," *OMZ*, used in Raevsky, "Russian Military Performance in Chechnya," 682.

⁴⁸ Raevsky, "Russian Military Performance in Chechnya," 683.

-
- ⁴⁹ "Counting the Costs of Chechnia," *JIR Pointer*, April 1995, used in Raevsky, "Russian Military Performance in Chechnya," 684.
- ⁵⁰ Nina Bachkatov and Andrew Wilson, "Techetchenie: Histoire d'un conflit," *Les Dossiers du Grip*, 1995, quoted in Raevsky, "Russian Military Performance in Chechnya," 684.
- ⁵¹ "Russland/Tschetschenien-Konflikt," *OMZ*, February 1995, quoted in Raevsky, "Russian Military Performance in Chechnya," 685.
- ⁵² Raevsky, "Russian Military Performance in Chechnya," 687.
- ⁵³ *Ibid.*, 687
- ⁵⁴ Gregory J. Celestan, "Red Storm: The Russian Artillery in Chechnya," *Field Artillery*, (January-February 1997): 43
- ⁵⁵ *Ibid.*, 42.
- ⁵⁶ *Ibid.*, 43.
- ⁵⁷ *Ibid.*, 42
- ⁵⁸ Sergey Leonenko, "Capturing a City," *Army Digest*, No. 3 1995, quoted in Celestan, "Red Storm," 42.
- ⁵⁹ Celestan, "Red Storm," 43
- ⁶⁰ Sergey Leonenko, "Capturing a City," *Army Digest*, No. 3 1995, quoted in Celestan, "Red Storm," 43.
- ⁶¹ This method of employment is discussed in Foreign Broadcast Information Service, JPRS-UMA-85-012-L, "The Artillery Battalion in Combat," 1 May 1985, and also discussed in Celestan, "Red Storm," 43.
- ⁶² Celestan, "Red Storm," 43.
- ⁶³ *Ibid.*
- ⁶⁴ *Ibid.*
- ⁶⁵ *Ibid.*
- ⁶⁶ *Ibid.*
- ⁶⁷ Glenn, *Denying the Widowmaker*, 65.
- ⁶⁸ Celestan, "Red Storm," 42.
- ⁶⁹ Raymond Finch, "Why the Russian Military Failed in Chechnya," (Online) Available <http://call.army.mil/call/fmso/fmsopubs/issues/yfusfail/yfusfail.htm>, 27 October 1999.
- ⁷⁰ *Ibid.*
- ⁷¹ *Ibid.*
- ⁷² *Ibid.*
- ⁷³ *Ibid.*
- ⁷⁴ Grigoriy Sanin, "Diagnosis: The Hunt for the Lone Wolves' the Intelligence Services and Journalists Sum U the Results of the Russian Pearl Harbor," *Segodnya*, 24 Jan 96, quoted in Raymond Finch, "Why the Russian Military Failed in Chechnya," (Online) Available <http://call.army.mil/call/fmso/fmsopubs/issues/yfusfail/yfusfail.htm>, 27 October 1999.
- ⁷⁵ Finch, "Why the Russian Military Failed in Chechnya," (Online) Available <http://call.army.mil/call/fmso/fmsopubs/issues/yfusfail/yfusfail.htm>, 27 October 1999.
- ⁷⁶ *Ibid.*

⁷⁷ Oleg Blotskiy, "Chechnya: A War of Professionals,"
quoted in Raymond Finch, "Why the Russian Military Failed in
Chechnya," (Online) Available [http://call.army.mil/call/
fmso/fmsopubs/issues/yusfail/yusfail.htm](http://call.army.mil/call/fmso/fmsopubs/issues/yusfail/yusfail.htm), 27 October 1999.

⁷⁷ Finch, "Why the Russian Military Failed in Chechnya,"
(Online) Available [http://call.army.mil/call/ fmso/fmsopubs/
issues/yusfail/yusfail.htm](http://call.army.mil/call/fmso/fmsopubs/issues/yusfail/yusfail.htm), 27 October 1999.

⁷⁸ Ibid.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Celestan, "Red Storm," 45.

⁸² Glenn, *Denying the Widowmaker*, 58-59.

⁸³ Ibid., 5.